A CASE
OF
SECONDARY SMALL-POX,
WITH
REFERENCES TO SOME CASES OF A SIMILAR NATURE.

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Read Jan. 30, 1810.

IT has long been observed by medical practitioners, that, after the constitution has undergone the ordinary influence of small-pox, the individual is still liable to be *locally* affected by the variolous poison, whether introduced under the cuticle by inoculation, or applied in continued contact to the undivided skin. Hence, on the one hand, some inoculators have been in the practice of repeatedly inoculating themselves, and raising a pustule on some part of their own skin, in order to preserve a constant supply of the *virus* for the purposes of their profession; and, on the other, no phenomenon is more common, than an eruption of variolous pustules round the nipples and on the

breasts of women, during an attack of small-pox in the infants whom they suckle. In some cases, a moderate degree of feverishness and general indisposition is observed to accompany these secondary eruptions. It is, however, almost universally believed, that the constitutional effects of the varolous poison having been once produced, nothing beyond this local influence can result from its application hereafter. But many exceptions to this general truth are recorded, upon undeniable evidence, and might be multiplied, it is probable, were all cases of the kind accurately noted, and none of a questionable nature slurred over or explained away, under the presumption of the impossibility of a second occurrence of small-pox. Two instances of this recurrence of the disease have come under our notice, at the Public Dispensary, within the last three years, although small-pox rarely claims the attention of physicians in those institutions, unless in a few severe and aggravated cases. The instance, which I have now to relate, is of recent occurrence.

Frances Bird, aged 25, residing at No. 3, Bowl and Pin Alley, Chancery Lane, nursed with great assiduity an infant, nine months old, during the progress of confluent small-pox, of which it died on the 15th day of November, 1809. For two or three days previous to the death of the infant, she felt herself languid and feverish; and on the evening of the 15th she became still more indis-

posed, complaining of considerable pain in the back, pains about the breast and stomach, thirst, and loss of appetite, which were followed by vomiting. These febrile symptoms continued; and on the 17th an eruption began to appear on the skin*. On Tuesday, the 21st of November (the 5th day of the eruption) she called upon me at home, supported by her mother, and stated the extreme indisposition, under which she laboured, as an apology for not deferring her application until the following day, at the regular hour of attendance at the Dispensary. Her countenance was exceedingly heavy and languid; the eyes were dull, and slightly suffused with redness; the tongue was furred, white, and rather clammy; the pulse frequent and feeble; and the skin hot and dry, with a sensation of soreness and stiffness in it. She complained of great inability of exertion, and of much general uneasiness. There were about fifteen spots on the face, approaching to the pustular character, some of them rather horny and tuberculated, but others less so, and surrounded by a slightly red circle; two or three of them, indeed, on the left cheek, were surrounded by considerable redness and some hardness and elevation of the

* This circumstance is worthy of particular observation. In those instances of the recurrence of small-pox in a local degree which are common in nurses, the feverishness, if any take place, appears *subsequent* to the eruption, of which it is symptomatic; but, in this case, the fever *preceded* the eruption, as in the ordinary progress of the Exanthemata.

skin : there were three or four on the eyelids, accompanied by some redness of the tarsi, especially of the right eye, and two on the side of the nose : there were also several other pustules on the breast, and, as she stated, on the body and thighs to the number of about fifty.

This eruption was obviously of a variolous character, and had been so considered by her mother and friends. But the mother expressed her surprise at the occurrence, since she affirmed that the patient had undergone the casual small-pox in her infancy, in so severe a degree that her life was then despaired of;—that the medical attendant had called it “ the *putrid* small-pox ;” —and that she had been blind six days : all of which was corroborated by the *numerous pits* with which her face was thickly marked.

At my request, Dr. Willan saw her this day, and confirmed the opinion of the variolous nature of the eruption : he obtained a drawing of the pustules, as they appeared on the face, which he has kindly allowed me to lay before the Society.

Wednesday, Nov. 22. (6th day.)—I visited her, in company with my friend and colleague, Dr. Laird. We found the pustules somewhat increased in elevation, and the redness surrounding them also augmented. The countenance was still dull and heavy, and the eyes rather suffused. The

pulse 110; the tongue white, and rather dry; the skin slightly hot; no appetite; some thirst. A laxative, prescribed yesterday, had operated. There were several pustules on the left mamma, four or five immediately surrounding the nipple, the child having been nourished from that breast.

Thursday, Nov. 23. (7th day.)—Doctors Laird and Birkbeck visited her with me to-day. The elevation of the pustules is nearly as yesterday; the surrounding redness is almost gone: those about the nipple are beginning to dry. She still complains of being feverish, and without appetite for food; but there is less heaviness, and no redness of the eyes, and much less languor of the countenance. The tongue is still white, but moist: the pulse still quick. On the suggestion of Dr. Birkbeck, one of the pustules was opened, and the fluid found to be purulent. Bowels much relaxed by the diaphoretic mixture, which she has taken.

Friday, Nov. 24. (8th day.)—She walked to Dr. Willan's house in Bloomsbury Square, this morning, found herself ill and fatigued after her return, and was lying on the bed when I called upon her. She complained of languor and headach; the pulse was upwards of 100; and the skin rather hot; the tongue as yesterday. The pustules on the face are full, and of a deeper yellow colour; those on the eyelids somewhat sunk and

horny. I armed a lancet from one of those on the cheek.

Saturday, Nov. 25. (9th day.)—She is free from indisposition, and the pustules generally are drying, and of a brown colour :—those on the cheek, which were surrounded by the largest areolæ, still contain pus; and one on the neck, and another on the thigh, are large, elevated, and inflamed, assuming the appearance of small boils, and containing a considerable quantity of purulent matter.

Monday, Nov. 27. (11th day.)—All the pustules are dried, and a little, acuminate, brown scab is formed upon each of them.

With the lancet, which was charged with *virus* on the eighth day of the eruption, the arm of a young woman was inoculated by Mr. Wachsel, in the Small-pox Hospital; while *virus*, taken from a patient in the hospital, was inserted into the other arm. Full and regular pustules appeared on both arms, at the same time, and went through the same course, no difference between the two being observable. Had the disease of my patient been *chicken-pox*, one of the eruptions would have been suspended, until the other had gone through its course.

This case afforded another fact, which must not be omitted to be mentioned. My patient was the

mother of three children ; one of whom was seven years of age, the other three and a half. Both these had undergone vaccination at the age of eleven months respectively : i. e. the one six years preceding this occurrence ; the other nearly three ; and although they both resided in the same apartment, during the progress of the fatal small-pox in the infant, they remained altogether free from complaint ; the cow-pock having, in this instance, effected a security, which the small-pox itself had failed to produce.

The other case, to which I have alluded, occurred under the observation of my colleague, Dr. Laird, in the summer of 1806. Being absent from town, at that time, I did not see the patient ; and regret that my friend only published the following brief notice of it. His words are these :

“ I avail myself of this opportunity to advert to another fact in the history of small-pox. The agitation of the vaccine question has, I think, clearly ascertained that one of our medical dogmas admits of some limitation. It has been proved that the same individual may be twice susceptible of the specific operation of the variolous poison. I conceive the following to be a case in point. During the course of last summer, one of my patients at the Public Dispensary, a boy 13 years

of age, had the natural small-pox very severely. It was regular in its progress and duration: and yet, when a year old, he had slept in the same bed with his grandmother, while she laboured under this disease, which proved fatal to her; and at that period he was the subject of an eruption, accompanied with fever, and considered not only by his friends, but by a respectable surgeon, who attended him, to be genuine small-pox *."

The importance of attaining to accuracy in regard to the question involved in the preceding history, being, under the present circumstances, extremely great, I may perhaps be allowed to trespass farther on the time of the Society, while I notice a few similar facts, which stand on record. To attempt to impugn a doctrine, which is at least as old as the Arabian † schools, and has appeared to be confirmed by the experience of every succeeding age, would perhaps be considered as the height of temerity, if not of folly; but when we reflect, that until a very recent period, the phenomena of dis-

* See Edin. Medical and Surgical Journal, Vol. iii. p. 155.

† Even the Arabians admitted that, when the first *fermentation* of small-pox did not expel the whole of the *menstrual* humours from the body, subsequent *ebullitions* would take place, and the small-pox would occur a second time, sometimes even a third, but very rarely a fourth time. See Diemerbroeck, de Variolis et Morbillis. Cap. iii.

eases of the eruptive class were very imperfectly discriminated,—that down to the time of Diemerbroeck and even later, the small-pox and measles were deemed varieties only of the same disease *—that the small-pox and chicken-pox were not properly distinguished until near the close of the 18th century,—and that numerous authors have successively described examples of the recurrence of small-pox †;—the attempt might appear to be less extravagant. This very inaccuracy, however, of the old writers renders their descriptions of the recurrence of small-pox extremely questionable: and it cannot be doubted, that many of the cases described by them, and by others, referred to by Burserius ‡, were instances of chicken-pox; and that others, in which the disease has been said to recur five, or seven times §, or still more frequently, were either altogether fabulous, or that different eruptions were mistaken for small-pox. We cannot, at least, put the authority, on which such

* Loc. cit. cap. xiii. De Morbillis. “Differunt a variolis accidentaliter; seu secundum magis et minus.”

† See *Van der Wiel*, *Observationes Medico-anatomicæ*. Cent. II. 42.—*Hagendorn*, *Hist. Medico-physicæ*. Cent. II. Obs. 60.—*Journal des Savans*, Tom. II. p. 417. 1759.—*De Haen*, *Rat. Med.* P. IX. Cap. VII, &c.—*Diemerbroeck*, loc. cit.—*Forestus*, *Lib. VI.* Obs. 43, &c.

‡ *Institut. Medicinæ*, Vol. II. p. 157.

§ See *Borelli*, *Histor. Medico-physicæ*. Cent. III. Obs. 10. *Paullini*, *Observat. Med.* Cent. III. Obs. 27.—*Ephemerides Natur. Curiosor.* Dec. II. Ann. IV. Obs. 29.

histories are related, in competition with the testimony of a Dimsdale or a Woodville, who are said to have discredited the recurrence of small pox, except in the *local* form before-mentioned.

With respect to Dr. Woodville, however, this statement is not correct. Mr. Ring informs us, on the authority of Mr. Ridout, who attended a child, affected by a second attack of small-pox along with Dr. Woodville, that Dr. W. admitted it to be "the second instance he had seen, in which there could be no doubt of the fact*." And Dr. Woodville once stated to me, in answer to a question, respecting his experience on this point, that not a year elapsed, in which one or more children were not brought to the Small-pox Hospital, labouring under small-pox, but who were said by the parents to have previously gone through the disease. Dr. Woodville admits, too, in his *History of Inoculation*, (page 217) that a fact, stated by Dr. Deering of the recurrence of small-pox in a boy (a son of Dr. Croft), who had previously suffered the disease in a confluent form, had not been contradicted. Dr. Adams, his successor at the Small-pox Hospital, allows that examples of such recurrence, in our own days, are both numerous and well authenticated †."

* See Med. and Phys. Journal, Vol. XIV. p. 406.

† See Med. and Phys. Journal, Vol. XIV. p. 195.—Also, *Answers to all Objections against Vaccination*.

Instances of a second infection, communicated like the case which I have detailed, by nursing patients under the disease, are indeed exceedingly numerous. Mr. Ring has collected, with great industry, a variety of such examples, which appear to be well established both by the circumstances and by respectable authority. In five cases of this sort, females, who had suffered severely from the small-pox, when young, received the disease a second time, with considerable constitutional indisposition; in one of them upwards of 100 pustules appeared; in another 300; in a third 10 or 12; and in a fourth "an eruption all over the body*." Similar cases are mentioned by other authors†.

There are many examples on record, both in our own time, and in the age immediately preceding, when the small-pox was well understood, in which decided, severe, and even fatal small-pox have been observed a second time in the same individual from a more casual infection. One of the most striking is the case of Mr. Langford, related in the 4th Vol. of the Memoirs of the Medical Society of London. This person's countenance was "re-

* See Med. and Phys. Journal, Vol. XIV. p. 402.—Vol. XV. p. 434.

† Ibid. Vol. XII. p. 318. by Hensler, &c. Mr. Moore mentions a lady of his acquaintance, who was infected, in this secondary way, with slight indisposition, six successive times when suckling her children. See his Reply to the Antivaccinists.

markably pitted and seamed" by a former malignant small-pox, "so as to attract the notice of all who saw him;" yet at the age of 50, he was attacked again with confluent small-pox, of which he died; having infected five of the family, one of whom also died.

In the case of Miss Price, published by Dr. Adams, the small-pox, produced by inoculation in her infancy, had left some visible marks on the face; yet she lately had a full eruption of distinct casual small-pox. She had had the chicken-pox when a child*.

A writer in the *Journal des Savans*†, has described a similar occurrence of small-pox, in a young woman, who was marked by a previous attack of the disease. He was unable to account for it, until he found, that she had slept in sheets used by a child labouring under small-pox. The writer seems to have been aware of the "*variole volante*," (doubtless the chicken-pox), occasionally occurring after small-pox, with a slight fever of twenty-four hours duration.

De Haen relates several instances, in his different works, of the recurrence of small-pox; among which are the following.

* Answers to all Objections, &c. App. II. p. 31.

† Tom. IX. for the year 1759, page 417.

The daughter of a Florentine nobleman was inoculated in 1761 ; but, although the arm exhibited the usual appearances, the pustules on other parts were few, and dried up in a few days ; insomuch that the family were doubtful of her security ; but their doubts were removed by the opinion of those experienced inoculators, Tozzetti and Condamine. Her brothers, however, were inoculated in 1763, when she received the infection from them, and had a copious eruption of distinct small-pox*.

De Haen likewise relates, that a student of law at Helmstadt, about 20 years of age, took the small-pox in the casual way ; his face was swelled, and the pustules were numerous, and surrounded by a red circle ; a secondary fever took place on the 6th day ; the pustules became confluent in a few places, in which pits were left. He went to pursue his studies at Frankfort, where he died, three years afterwards, of the confluent small-pox ; in which the eruption was very copious, depressed, and no redness surrounded it †.

The same author also describes the cases of the daughter and two sons of Dr. Krapf, Archiater to the Archduke Leopold, from his own diary ; all of whom appear to have gone through two very

* Ratio Medendi, P. IX. Cap. VII.

† Loc. cit.

decided attacks of small-pox, in the spring and summer of the same year.

In another publication * he has detailed other instances, which appear to be equally unequivocal ; three of these occurred in a noble family, in Vienna, and were attended by De Haen and Molinari. The circumstances in one of the three are related as follows :

“ *Filia autem natu major, verno tempore anni 1760, variolas alteras passa est. Testari id possum, cum sæpius illam, una cum Clariss. Molinari inviserim. Discretæ quidem multis in locis erant, at quoque in multis cohærentes, confertissimæ adeo, ut in facie, brachiis, cruribus, vix daretur sine papulis locus. Gravis utique fuit morbus. Salivatio incepit mox ab eruptione, continuavit ad undecimam morbi diem, adeo copiosa, ut, mensurâ de industria captâ, sesquilibræ vas quotidie expleret; post undecimum vero sensim decrescens, tandem ad decimum quartum cessavit. Hanc autem aliquando imminutam, pectusque ac guttur angustantem, continuatis manè ac sero balneis brachiorum et crurum, potu multo, injectione in fauces, gargarismis,*

* Ad Perillust. B. L. Tralles, Epistolam Apologet. Responsio p. 11. See also *De Haen's* Quæstiones super Methodo Inoculandi Variolas, &c. Likewise *Hagendorn*, Historiæ Medico-physicæ, Cent. II. Obs. 60. and *Sarcone*, Epist. ad Hallerum V. in both of which, instances of a fatal recurrence of small-pox are related.

et auctiore imprimis mane ac vespere opio, feliciter semper restituimus, venam secare nondum coacti.

“ Igitur hæc nobilissima virgo, quæ ante elapsos duos cum dimidio annos, graves adeo variolas passa erat, nunc iterum et copiosissimas, et molestissimas, et multo diuturnoque ptyalismo sociatas, habuit.”

Besides the cases above stated and referred to, numerous others are on record, to which I have not found access: and some treatises have been written expressly upon the subject, which are probably not to be found in this country. Such are *Gerardi*, Ritorno di Vaiuolo, Padua, 1776;—*Löber*, Sendschreiben von dem Wieder-kommen der Pochen, &c. Erfurth. 1767;—*Medicus et Petit*, Deux Lettres sur la rechute de la contagion de la Petite Verole, Manheim, 1767;—which I have not seen.

Enough, however, has probably been stated to render the occasional recurrence of small-pox unquestionable; and at least, to make us pause, before we reject the evidence which may come before us, on the subject; and to lead us to a careful and accurate examination, where appearances, tending to invalidate the received dogmas, occur. It will not therefore be necessary to recapitulate the examples adduced, to the number of 60 or 70,

by Mr. Ring*, many of which, although founded upon the testimony of unprofessional persons, are very circumstantially detailed;—not to quote the authority of Pallas, who, I am informed, mentions that he was detained, when on his travels, by his daughter falling ill of small-pox, which she had before suffered;—nor to repeat the statements of the second attack of the disease in the person of Louis XV. of France, in whom a former occurrence from inoculation had been publicly announced;—neither shall I recur to the cases, of which we have only oral evidence, and several of which were mentioned in this Society on a former evening. These latter statements receive a higher degree of probability, from the well established evidence of the former cases; and the whole cannot but lead us to the opinion, that, upon a close and faithful investigation of facts, it will be found, that the small-pox occasionally occurs a second time, or oftener, in every degree of severity, from the few local pustules, unaccompanied by constitutional indisposition, which are occasioned by mere contact, up to the most general, and malignant disease.

* See his Treatise on Cow Pox, and various Numbers of the Medical and Physical Journal, especially in Vols. XII, XIV, and XV.